But this may be only a proof that the mulfcitabercular antedates the tritubercular. It may be., indeed, that the mammalian tooth was already differentiated among the mammal-like Saurians and that from such a form as *Cynognathus* the Eutheria and other forms in which a tritubercular arrangement can be detected were evolved, and from such form as *Tritylodon* the Monotrematous branch of the mammals. This way of looking at the matter harmonises a much - disputed question, but involves a diphyletic origin of the mammals—an origin which for other reasons is not without its supporters.

We shall now attempt to give a general idea of the facts and arguments which support or tend to support " trituberculy." As a matter of fact the name is inaccurate; for the holders of this view do not derive the mammalian molar from a trituberculate condition, but in the first place from a simple cone such as that of a crocodile!

To this main and at first only cusp came as a reinforcement an additional cusp at each side, or rather at each end, having regard to their position with reference to the long axis of the jaw. This stage is the " triconodoiit " stage, and teeth exist among living as well as extinct mammals which show this early form of tooth. We have, indeed, the genus *Triconodon,* so named on that very account. Among living mammals the Seals and the Thylacine all show some triconodont teeth. A Toothed Whale, it may be remarked, is a living example of a mammal with monocono-dont teeth. The three primary cusps, as the supporters of Cope's theory of trituberculism denominate them, are termed respectively the protocone, paracone, and metacone, or, if they are in the teeth of the lower jaw, protoconid, paraconid, and metaconid. At a slightly later stage, or coineidently, a rim partly surrounded the crown of the tooth; the rim is known as the cingulum, and from a prominent elevation of this rim a fourth cusp, the hypocone, was developed. The three main cones then moved, or rather two of them moved, so as to form a triangle; this is the tritubercular stage. Teeth of this pattern are common, and occur in 'such ancient

forms as Tnsectivora and Lemurs, besides numerous extinct groups.
An amendment has been suggested, and that is to term the teeth with the simple primitive triangle " trigonodont," and to reserve the term tritubercular for those teeth in which the hypocone has appeared. The platform bearing the hypocone widened into the